

CONFIDENTIAL FINAL REPORT
MANAGEMENT AUDIT
OF THE FEES ASSESSED TO
ILLINOIS AMERICAN WATER COMPANY
(IAWC) BY ITS AFFILIATED SERVICE
COMPANY

IAWC Management Audit ICC11W0001

Submitted to the:

Illinois Commerce Commission

527 E. Capitol Avenue
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NORTHSTAR CONSULTING GROUP

MANAGEMENT CONSULTANTS

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I. INTRODUCTION

American Water Works Company, Inc. (AWK), a Delaware Corporation and publicly traded company, was founded in 1886 as the American Water Works & Guarantee Company for the purposes of purchasing water systems in McKeesport, Pennsylvania. In 1935, the company was reorganized under its current name, and in 1947 the common stock became publicly traded on the New York Stock Exchange (NYSE). In 2003, RWE Aktiengesellschaft (RWE), a corporation incorporated in the Federal Republic of Germany, acquired the company. In April 2008, RWE Aqua Holdings GmbH, a German limited liability company and direct wholly-owned subsidiary of RWE, which then was the sole owner of AWK's common stock, completed a partial divestiture of its investment through an initial public offering (IPO). At that time the company returned to being traded on the NYSE as ticker symbol "AWK." During this period RWE held approximately 60 percent of AWK's common shares. Throughout 2009, RWE continued to divest of its investment in AWK through public offerings and on November 24, 2009, RWE completed its divestiture.

AWK is the most geographically diversified, as well as the largest publicly traded, United States water and wastewater utility company, as measured in both revenue and population served. A workforce of more than 7,000 employees provide approximately 15 million people with drinking water, wastewater and other water related services in over 30 states and two Canadian provinces.¹

AWK's two operating segments are also its two NYSE reportable segments and are referred to as the Regulated Businesses and Market Based Operations (formerly known as the "Non-Regulated Businesses"). Illinois American Water Company (IAWC), is third in AWK Regulated Business revenues behind Pennsylvania and New Jersey. In 2010, AWK Regulated Businesses generated approximately \$2.4 billion or 89.4 percent of the AWK consolidated operating revenue. IAWC comprised \$232 million or 9.6 percent of consolidated operating revenue. For the same period, Non-Regulated Businesses generated approximately \$311.8 million in operating revenue, which accounted for approximately 11.5 percent of total consolidated revenue.¹ IAWC serves approximately 308,000 customers in 126 communities or about 9.2 percent of the total customers served by the company.²

American Water Works Service Company (AWWSC) was formed in order to provide shared services to the AWK operating divisions at cost. The services available through AWWSC are communications and external affairs, corporate finance, customer service, division operational support and regulated operations, human resources (HR), information technology services (ITS), legal, operations services, and shared services. Each of these services includes governance and support responsibilities.³

¹ AWK Form 10-K, December 31, 2010

² AWK Form 10-K, December 31, 2010

³ DR 1

A. GENERAL RATE CASE TESTIMONY

On May 29, 2009, Docket 09-0319, IAWC filed for a general water and sewer rate increase of approximately \$59 million. This represented a requested increase in revenues of almost 30 percent and an increase in rate base in water of 35 percent and 65 percent in sewer. IAWC utilized 2010 as a forecast test year for its rate proceedings. Included in the general rate increase was \$21,136,057 for AWWSC-related operating fees excluding incentive compensation. This represented an increase of 22.5 percent from the previously approved rates.⁴

In the previous rate case, Docket No. 07-0507, the Illinois Commerce Commission (ICC) questioned whether IAWC was doing everything possible to ensure low costs for ratepayers and directed IAWC to conduct a study comparing the cost of each service obtained from the AWWSC to the costs of such services had they been obtained through competitive bidding on the open market. As part of the study, IAWC was required to also provide an analysis of the services provided by the AWWSC to all IAWC affiliates. This analysis provides details on the specific services provided to IAWC and how costs were allocated among affiliates of IAWC. IAWC was compelled to include the study in its next rate filing.⁵

In Docket 09-0319 IAWC filed the following three Service Company cost and market price studies intended to comply with the ICC order:

- Deloitte Service Fee Study - “Service Company Cost Study”
- Belleville Lab Cost Study
- Self-Provisioning Study⁶

The ICC approved \$18.1 million for AWWSC operations costs in its final order on April 13, 2010. In 2010, AWWSC billed IAWC \$21.2 million for operating costs and \$4.7 million for capital expenditures. A chronology of the rate case activity is presented below.

- May 29, 2009 IAWC filed its new and/or revised tariff sheets for water and sewer service proposed to be effective July 13, 2011.
- On July 8, 2009 the ICC entered a Suspension Order suspending the Proposed Tariffs until and including October 25, 2009.
- Public forums were held on October 1, 2009, October 8, 2009, October 19, 2009, November 4, 2009, and November 9, 2009.
- Re-suspension was initiated on October 7, 2009, covering the period to and including April 25, 2010.
- Evidentiary hearings were held December 8–10, 2009 that included appearances by:
 - Illinois American Water Company (IAWC)
 - American Water Works Service Company (AWWSC)
 - Illinois Attorney General (AG)
 - Citizens Utility Board (CUB)

⁴ Docket 09-0319 Final Order page 27 and page 33

⁵ ICC ORDER 09-0319 April 13, 2010.

⁶ DRs 1 and 26

- Village of Bolingbrook, IL (Bolingbrook)
- Illinois Industrial Water Consumers (IIWC)
- Village of Homer Glen, IL (Homer Glen)
- City of Champaign, IL (Champaign)
- City of Des Plaines, IL (Des Plaines)
- City of Urbana, IL (Urbana)
- Village of St. Joseph, IL (St. Joseph)
- Village of Savoy, IL (Savoy)
- Village of Sidney, IL (Sidney)
- Illinois Commerce Commission Staff (ICC Staff)
- On April 13, 2010 the ICC issued their Order on Docket Number 09-0319.

On June 3, 2010, the ICC issued an initiating order in Docket No. 10-0366. The initiating Order requires a management audit comparing the cost of each service currently obtained from IAWC's AWWSC to the cost of such services if the services were obtained through competitive bidding on the open market.

Key elements of IAWC's testimony are summarized below.

The Services Contract was approved by the ICC in 1989

- The IAWC has a contract with AWWSC for services that were approved by the Commission on July 19, 1989, in Docket No. 88-0303. Pursuant to the Commission's order in a prior IAWC rate case, Docket No. 02-0690, the agreement between the Company and the Service Company was reapproved in Docket 04-0595 on October 20, 2005.⁷

AWWSC employees are expert in all aspects of the water utility business

- IAWC testified that the AWWSC employees are expert in all aspects of the water utility business, and have detailed knowledge and experience specifically with the operations and facilities of IAWC and other American Water operating companies.⁸
- IAWC stated it also obtains services from outside providers other than the AWWSC, when AWWSC is unable to provide specialized services needed to address specific situations or where use of a non-affiliate provider is appropriate based on cost or other considerations.⁹

Certain functions "cannot" be provided by non-affiliate personnel (i.e., corporate governance, customer service, and benefits administration)

- IAWC stated that the AWWSC provides a corporate governance function, which cannot be provided by non-affiliate personnel due, in part, to the need for strict confidentiality of certain information in accordance with securities laws. In addition, governance functions

⁷ DR 1: Exhibit 1.00.

⁸ DR 1: Exhibit 12.00.

⁹ ICC ORDER 09-0319 April 13, 2010.

by their nature, must be provided by management personnel who are directly accountable to AWK's shareholders, which requires that governance personnel be employed by IAWC or an affiliated entity.¹⁰

- IAWC also believes that affiliate personnel should perform the Customer Service Center (CSC) functions. This assures proper management control over the customer communication and billing process, compliance with applicable regulatory requirements, and prompts action in the event that notice of a boil order or service interruption is required. Due to public health and safety concerns related to water utility operations, and the rigorous requirements related to training and monitoring of the CSC function, IAWC believes that affiliate personnel also should perform the function.¹¹
- As discussed by IAWC, another service provided by the AWWSC is an Employee Benefits Service Center (BSC) operated by the Human Resources function. Due to the complex and confidential nature of employee benefits, and the need to maintain an appropriate relationship between IAWC and employees, IAWC also would utilize only affiliate personnel for the BSC.¹²
- For these services, where use of a non-affiliate provider is not feasible, a Self Provision analysis in IAWC Exhibit 1.04 provided the applicable market comparison.¹³

AWWSC charges are budgeted and monitored

- IAWC stated that the AWWSC presents IAWC a budgeted level of charges for each year. The budget shows the planned level of service in detail and the associated cost.¹⁴ The president of IAWC reviews the AWWSC budget and approves it before it takes effect. In addition, for each major project undertaken, IAWC approves the project and any outside consultants utilized.¹⁵
- IAWC also stated that a detailed review of the AWWSC bills and cost allocations affecting IAWC was conducted. This review process assures that AWWSC billing is accurate and reasonable. Each month, IAWC prepares a comparison of actual cost incurred in the budgeted cost levels for all items, including AWWSC billing. IAWC also reviews a budget/actual variance report prepared monthly by the AWWSC for all of its operations.¹⁶

Municipal rates are not comparable

- In IAWC rebuttal testimony, the company addressed concerns raised in the direct testimony related to the general level of IAWC's water and sewer rates when compared to the rates charged by surrounding municipal water and sewer utilities, for providing

¹⁰ DR 1

¹¹ DR 1

¹² DR 1: Exhibit 1.00.

¹³ ICC ORDER 09-0319 April 13, 2010

¹⁴ DR 1: Exhibit 1.00.

¹⁵ DR 1: Exhibit 1.00.

¹⁶ DR 1: Exhibit 1.00.

water and or sewer service. The testimony discussed some of the many differences between IAWC's cost structure and the cost structures of municipal utilities in general, as well as some of the municipal utilities mentioned in the testimony of the above witnesses, and why IAWC's cost based rates as determined by the Commission are not unreasonable.¹⁷

Comprehensive Planning Study¹⁸

- In its direct case, IAWC included in rate base the costs of a Comprehensive Planning Study (CPS) in both 2009 and 2010 (referred to as the "double count"). The CPS was conducted by AWK to assess the needs of its business, to satisfy customer and other stakeholder expectations, and to review different technology options to support the implementation of automated processes that provide improved service to its customers. This study is the predecessor for Business Transformation (BT).¹⁹
- In AG Exhibit 1.0 at pages 22-25, the double count was identified, and the Company removed the double count. However, \$625,240 was left in rate base for Illinois' share of the CPS.²⁰ The AG recommended that the entire \$625,240, be removed from rate base. The AG further asked if it was appropriate to spend on a study of this kind.²¹ IAWC pointed out that the error was corrected in the Errata filing on September 22, 2009.²²
- IAWC disputed the AG's recommendation to disallow the cost of the CPS stating that no witness testified that the cost should be disallowed or that it was imprudent. IAWC stated that AWK began the CPS in the first quarter of 2009, and that its cost was allocated to all the regulated entities of AWK based on customer count.²³
- Based on the record, the Commission found that IAWC should be permitted to include nine percent of the total CPS cost in rate base. The Commission limited that amount to \$602,300, however, which is the amount in the original filing, rather than the updated amount of \$625,400.²⁴

Significant level of capital investment is required

- IAWC has invested and will continue to invest a significant level of capital in required facility additions and infrastructure replacement projects. For the 2007-2010 period, IAWC projected that it would invest over \$366 million in needed capital projects.²⁵

¹⁷ ICC ORDER 09-0319 April 13, 2010.

¹⁸ AWK, December 31, 2009 Form 10-K

¹⁹ ICC ORDER 09-0319 April 13, 2010.

²⁰ ICC ORDER 09-0319 April 13, 2010.

²¹ ICC ORDER 09-0319 April 13, 2010.

²² ICC ORDER 09-0319 April 13, 2010.

²³ ICC ORDER 09-0319 April 13, 2010.

²⁴ ICC ORDER 09-0319 April 13, 2010.

²⁵ DR 1: Exhibit 1.00.

AWWSC services result in significant cost benefits

- IAWC stated that it addressed the ICC's competitive bidding requirement through a set of studies and the testimony of five witnesses in the current case (collectively, the SC Cost Evidence): IAWC's President, Ms. Teasley; Mr. Mark Young of Deloitte & Touche; Mr. Uffelman of Uffelman Advisory Services; Mr. John Young, President of AWWSC; and Mr. Edward Grubb, IAWC Finance Director.²⁶
- IAWC stated that the provision of certain professional and managerial services to IAWC through the AWWSC results in significant cost benefits to the company. The cost savings expected to be realized by IAWC during the future test year ending December 31, 2010, when compared to the costs of acquiring such services in the open market from third-party service providers, amount to \$7.692 million. The net savings expected to be realized by IAWC results from AWWSC's ability to provide services at a cost, which is lower than the projected market cost of such services.²⁷
- According to IAWC, to self-provide all services provided by the AWWSC, IAWC would be required to retain 182.5 additional employees (on a full-time employee (FTE) basis), and also would incur increased one-time costs for (1) the hiring of new employees; (2) training and orientation; and (3) relocation cost. The increased cost (including applicable overheads) for all services, including corporate governance, customer service and the employee benefits service center, would amount to approximately \$6.25 million.²⁸

Intervenor Positions

- The AG took issue with the AWWSC fees in IAWC's test year and stated that the commission should reject the 22.5 percent increase in management fees that occurred in less than 12 months.²⁹ IAWC testified that there are IAWC employees who are responsible for engineering, planning, design, overseeing construction projects and overseeing the capital program, as well as finance and communications and external affairs. The AG argued IAWC seeks to include, in rates more than \$20 million, for AWWSC to provide management and business services.³⁰
- In Section V of its Initial Brief, Homer Glen et al. argued that the Service Company Cost Study submitted in the rate docket fell far short of the requirements set out in the Final Order. IAWC divided the study into two parts. The first part is a Self Provision Study that took certain items and compared costs incurred by other entities, presumably for the same function. According to Homer Glen, a cost comparison is not the same as a study that seeks competitive bids for the tasks. Thus by definition, the Self Provision Study

²⁶ ICC ORDER 09-0319 April 13, 2010.

²⁷ DR 1: Exhibit 10.00

²⁸ ICC ORDER 09-0319 April 13, 2010

²⁹ ICC ORDER 09-0319 April 13, 2010

³⁰ ICC ORDER 09-0319 April 13, 2010

failed to comply with the Commission's Order. The second part of the study was a Market Analysis.³¹

- Bolingbrook argued that based on the Commission's directive in its Order in Docket 07-0507, IAWC was to prepare a Service Company Cost Study based on competitive bidding in the open market. In Bolingbrook's view, IAWC failed to prepare such a study in this proceeding. Rather, IAWC prepared a comparative study of Service Company cost and market prices for certain services.³² Bolingbrook went on to argue that the methodology of the Service Company Cost Study did not include even one competitively bid service. The Service Company Cost Study submitted by IAWC consisted of two general components: the Self Provision Study (IAWC Ex. 1.04) and the "Market Analysis."³³

IAWC Rebuttal

- IAWC asserted that its evidence in this proceeding fully met the requirements of the Commission's Order in Docket 07-0507. According to IAWC, the Docket 07-0507 Order did not require use of a particular methodology to project market prices, and did not require that IAWC conduct a bid process. Furthermore, the methodology used in the Service Company Cost Study to project 2010 market prices was not criticized by witness testimony in this proceeding.
- IAWC also stated that without the benefit of evidence, the AG, Bolingbrook and the Municipalities maintain that it should, at the time of the Service Company Cost Study, have conducted a procedure to obtain competitive bids as a basis to project market prices for services expected to be required during 2010. IAWC's consultant, Deloitte & Touche, utilized data from two types of sources. First, Deloitte & Touche used widely utilized surveys of market prices, as well as supplemental data, to arrive at expected 2010 hourly prices that would be obtained through competitive bidding.
- IAWC went on to argue that no witness challenged use of that approach in the Service Company Cost Study, or suggested that at the time of the Study, some other approach was feasible.³⁴

ICC Findings and Order

- The Commission concluded that the Company had requested \$21.167 million excluding incentive compensation, reflecting a 22.5 percent increase over the cost of the services IAWC had projected to receive from the AWWSC in the 2010 test year compared to IAWC's last rate case.³⁵

³¹ ICC ORDER 09-0319 April 13, 2010

³² ICC ORDER 09-0319 April 13, 2010

³³ ICC ORDER 09-0319 April 13, 2010

³⁴ ICC ORDER 09-0319 April 13, 2010

³⁵ ICC ORDER 09-0319 April 13, 2010

- In IAWC's last rate case, the ICC directed IAWC to conduct a study comparing the cost of each service obtained from the AWWSC to costs of such services had they been obtained through competitive bidding on the open market. As explained in some detail above, IAWC asserted that it met this requirement through a set of studies and the testimony of five witnesses. This evidence purportedly showed that for those services that (1) IAWC obtained from the AWWSC; and (2) could be obtained from an affiliate or non-affiliate source, the amount paid by IAWC to AWWSC is well below the cost that IAWC would be required to pay a non-affiliate provider based on market prices for services. The Intervenor also asserted, through arguments of counsel that the Company's Service Company Cost Study did not comply with the directive in the Order in Docket 07-0507. On this issue, the Commission found that the studies performed by IAWC did not represent a reasonable effort to comply with the directive of the Commission. The Commission clearly stated in its order in Docket 07-0507 that IAWC's Service Company costs were questionable and that IAWC was to perform a study that compared the Service Company's costs to the costs that would be obtained through competitive bidding.³⁶
- Based on its review of the record, the Commission believed that IAWC had not justified the increase it requested for the AWWSC fees. The Commission questioned whether IAWC was doing everything possible to be efficient in controlling its management fees to avoid passing unnecessary costs to ratepayers. Although the Commission held that the expense requested was not unreasonable, it did so only in the absence of specific and adequately justified adjustments.³⁷
- IAWC was required to provide an analysis of the services provided by AWWSC to all of its affiliates. The analysis was required to provide details on the specific services provided to IAWC and how costs are allocated among its affiliates. IAWC was required to include the study in its next rate filing. However, IAWC did not provide the information as specified above in this rate filing. With no basis for comparison of the lower of cost or market for these services, the Commission could not adequately determine whether the increases in management fees proposed in this case by IAWC were just and reasonable. Thus, the Commission agreed with the AG's position on this issue and concluded that AWWSC fees should be capped at 5 percent over the amount approved in the 07-0507 Order.

Management Audit

- The Municipalities urged the Commission to order an independent audit of AWWSC fees, and that such cost be borne by IAWC with no recovery of it from ratepayers. The AG also suggested the Commission may want to consider ordering such an audit.
- IAWC opposed such an audit as lacking any incremental benefit. Moreover, IAWC argued, the Municipalities' suggestion that the cost of this study be borne by the utility is

³⁶ ICC ORDER 09-0319 April 13, 2010

³⁷ ICC ORDER 09-0319 April 13, 2010

inconsistent with language in Section 8-102 of the Public Utilities Act stating such costs shall be recovered as an expense through normal ratemaking procedures.³⁸

- The Commission agreed that an independent audit was of benefit and necessary in evaluating whether the Service Company fees assessed to IAWC, are in fact provided on a lower of cost or market basis as directed in the 07-0507 Order. Therefore, pursuant to its authority under Section 8-102 of the Public Utilities Act, the Commission directed IAWC to engage outside consultants to perform a management audit of its Service Company fees to compare the cost of each service obtained from the Service Company to the costs of such services had they been obtained through competitive bidding on the open market. The firm selected to perform the management audit shall be independent of IAWC, its affiliates, Staff, and all parties in this docket.³⁹
- The ICC scope of work for the proposed audit included a review of the IAWC's testimony, exhibits, and supporting documentation from the rate case. The testimony scope (as summarized herein) was used to develop an understanding of the IAWC's justification for obtaining services from AWWSC and to fully document the method(s) used to support the costs compared to market providers.
- The time permitted for conducting the audit and preparing the audit report, started from the date on which the auditor procurement process is complete and the audit contract awarded through the date on which the report of audit findings and results are submitted to the parties, will not exceed six months from the date of this Final Order, unless IAWC is found by the Commission to have not used its best efforts to provide on a timely basis information reasonably requested by the auditor in a form that is usable by the auditor. Upon receiving word from the auditor that IAWC is not providing the requested information, the Commission Staff shall have two full business days in which to attempt to resolve the issues informally. If such informal processes do not result in a resolution of the issues, Staff shall present the issues to the Commission for formal resolution of such issues.⁴⁰

B. STUDY APPROACH

The objective of the ICC ordered Competitive Services Study (ICC11W0001) conducted by NorthStar Consulting Group (NorthStar) was to provide the ICC with an independent assessment of the charges directed to IAWC by its affiliate service companies, and to determine whether the charges are in fact equivalent to competitive charges. Making this process more difficult is the fact that some services cannot reasonably be provided by the open market. Thus, it was necessary to confirm that IAWC received reasonable value from the charges because even competitively priced products and services that provide little or no value to IAWC would not ensure low costs for Illinois ratepayers.

³⁸ ICC ORDER 09-0319 April 13, 2010

³⁹ ICC ORDER 09-0319 April 13, 2010

⁴⁰ ICC ORDER 09-0319 April 13, 2010

NorthStar conducted the study in accordance with Generally Accepted Auditing Standards (GAAS) and Generally Accepted Government Auditing Standards (GAGAS), which incorporate the American Institute of Certified Public Accountants (AICPA) standards of reporting. These standards are defined in Standards for Audit of Governmental Organizations, Programs, Activities, and Functions produced by the Government Accounting Office (GAO) in 1981 and revised in 2007. The standards related to issues of management economy, efficiency, and effectiveness, apply to public utilities.

NorthStar documented all its report findings and conclusions to ensure that its work is factually based, that findings and conclusions are supported by relevant data, that professional judgment, where applied, is differentiated from analytic results, and that the results of the review are easily traceable to specific consultant efforts, documents and interviews. In accordance with GAAS, NorthStar's work papers are complete, accurate, clear, and easily understood, legible and neat, relevant, and restricted to matters that are materially important and relevant to the objectives of the assignment.

Phase I. Orientation and Planning

During the first phase of the study, the NorthStar project team performed the following activities:

- Confirmed its understanding of the study objectives and scope with the ICC staff's expectations for the study.
- Finalized the contract and established project management protocols and other administrative matters.
- Developed an understanding of the operations, organization, and key management processes of IAWC, principally through initial interviews and data requests submitted at the beginning of the study.
- Finalized and received approval of the detailed work plan that would guide activities for the remainder of the study.

Phase II. Technical Review

In this phase, the team conducted principal investigation, data collection and other technical review activities for each of the nine service areas defined below.

1. Communications and external affairs (including customer, employee, government, and general public communication).
2. Corporate finance and accounting (including, budgeting, cash management, obtaining capital funds, invoice processing, cost allocation, financial report preparation and monitoring and other finance activities).
3. Customer service (including call center operations, billing and collection activities).
4. HR (including payroll, benefits, employee and labor relations, and organizational development).

5. ITS (including Business Applications development, client services, security, infrastructure and operations; also oversight of the Business Transformation project currently underway).
6. Legal
7. Divisional operations support and regulated operations (including customer operations, bill and service order reviews).
8. Operations services (including business development, regulatory affairs, internal audit, and investor relations).
9. Other shared services (including business development, regulatory affairs, internal audit and investor relations).

Each area was reviewed independently and as it related to the whole process. The NorthStar project team members conducted 67 interviews with company personnel and reviewed over 400 data requests as part of the process.

The following tasks were performed:

- Determined the cost of services provided by AWWSC to IAWC.
- Reviewed the company testimony.
- Determined which services could be obtained through competitive bidding.
- Determined the competitive cost/value of the services to IAWC.
- Compared the competitive cost/value of the services to the AWWSC costs.

Phase III. Report Development

Task reports for each of the functional areas were prepared and provided to ICC staff for their review. The task reports were then aggregated into a draft report and submitted to IAWC for fact verification and a review of confidential information. The report contains three foundational chapters:

- **Chapter I. Introduction** provides an overview of the background on the assignment, a summary of the IAWC general rate case testimony and the overall study approach.
- **Chapter II. Executive Summary** summarizes the findings and conclusions from the functional chapter analyses.
- **Chapter III Service Company Charges** contains an analysis of AWWSC charges including the allocation methods used to direct costs to IAWC.

Twenty-two chapters follow the initial three, each addressing a particular functional area provided by AWWSC, as indicated in **Exhibit I-1**. Each of these chapters is organized by background, work tasks performed, and results.

Exhibit I-1
Chapter Table

Chapter	Service Company Competitive Area
IV.	Business Transformation
V.	Finance
VI.	Accounting
VII.	Investor Relations
VIII.	Internal Audit
IX.	Customer Service
X.	Human Resources
XI.	Information Technology
XII.	Customer Relations
XIII.	Operations Services
XIV.	Engineering
XV.	Maintenance Services
XVI.	Environmental
XVII.	Central Lab
XVIII.	Supply Chain
XIX.	Operations Risk Management
XX.	Legal
XXI.	Regulatory Services
XXII.	Business Development
XXIII.	External Affairs
XXIV.	Corporate Administration and Property

II. EXECUTIVE SUMMARY

This chapter summarizes the independent assessment of AWWSC fees charged to IAWC during 2010, and whether IAWC is doing everything possible to ensure low costs to ratepayers by comparing AWWSC costs to the cost of such services if they were obtained through competitive bidding on the open market.

The report chapters provide detailed results of our study of AWWSC charges by functional subject area. The findings related to service costs are discussed in greater detail in the related chapters. This report compares costs of AWWSC services to those competitive services provided to utilities on the open market and reviews AWWSC charges with the goal of improving various aspects of the IAWC's cost of service and overall performance.

NorthStar's report contains 84 review results regarding AWWSC service charges to IAWC. The results of our analysis indicate that attention and remedial action should be focused in four areas:

- Management controls over AWWSC service charges
- Outsourcing opportunities and their potential economic effect
- Overcharges and potential erroneous service charges
- AWWSC's BT Program and its potential effect on future service charges.

Specific results are identified by their respective chapter and organized within each of the focus areas.

A. MANAGEMENT CONTROLS OVER AWWSC SERVICE CHARGES

AWWSC charges cannot be effectively reviewed by IAWC without considerably more information than is routinely provided by AWWSC. It is not clear that IAWC's regulated operating companies such as IAWC can effectively influence AWWSC in terms of budget, services provided, and service charges. Our review indicated that:

- III-1. AWWSC does not consistently adhere to its second cost assignment principle - direct charging - whenever possible.
- III-2. AWWSC does not consistently adhere to its fourth cost assignment principle - accurate billing.
- III-3. IAWC does not adequately review monthly charges from AWWSC and has no information to determine if AWWSC's bills are accurate.

- XVIII-2. Non-regulated AWK entities (IAWC affiliates) are subsidized by the regulated utilities when they utilize AWWSC national contract agreements and pricing but are not charged for supply chain services.

B. POTENTIAL ECONOMIC EFFECTS OF OUTSOURCING

NorthStar's review of outsourcing opportunities revealed many cases where AWWSC's consolidated services and economies of scale provide substantial benefits to IAWC. In many cases, the independent IAWC business processes were too small to be attractive to outsourcing providers. The functional areas that would not benefit from outsourcing include:

- Corporate finance functions
- Investor relations services
- Internal audit
- Manual billing and bill review
- Information technology services
- Engineering
- Maintenance services
- Environmental services
- Supply chain
- Claims management
- Legal services
- Regulatory services.

There are many areas in which AWWSC services are provided to IAWC at costs greater than would be possible through the use of commercially available service firms. The economic potential for competitively outsourced services is \$3.3 to \$3.5 million annually, based on 2010 AWWSC service charges to IAWC.

- VI-2. IAWC could reduce its cost for accounting functions by up to \$1 million annually by outsourcing these services.
- IX-2. AWWSC costs for contact center services are higher than outsourced options, by \$428,831 or more per year.
- X-4. It may be economically beneficial for IAWC to utilize a Professional Employer Organization (PEO) to provide multiple, bundled Human Resources (HR) services, with potential annual cost savings up to \$467,000.
- X-9. HR administrative services (i.e., payroll processing, the BSC and other HR administrative functions) are available in the marketplace at a competitive cost, at a savings of up to \$275,589 annually for IAWC.
- XIII-1. AWWSC's charges to IAWC for executive assistant support exceeded the competitive market by \$401,756 in 2010.

- XIII-3. AWWSC's charges to IAWC for network services support exceeded IAWC's own rates for network services by \$101,204 in 2010.
- XIII-4. AWWSC's charges to IAWC for executive management services were \$318,119 greater than the comparable cost of IAWC executive management in 2010.
- XVII-3. In 2010, the AWWSC Central Lab received less revenue from commercial customers than it should have based upon its commercial testing prices representing an additional IAWC credit of \$15,672.
- XVII-4. The AWWSC Central Lab charged IAWC \$193,455 more than it should have, based upon the prices charged to commercial third-party and AWK non-regulated affiliates in 2010.
- XXII-4. In 2010, IAWC paid between \$81,410 and \$271,410 more for Business Development (BD) services from AWWSC than if it had obtained those services from an independent BD provider.
- XXIII-1. IAWC could save about \$29,000 by outsourcing the government affairs function through participation in an industry association.

C. OVERCHARGES AND POTENTIAL ERRONEOUS CHARGES

AWWSC service charges are in many cases allocated to operating companies based on customers and in some cases do not appear to reflect services actually provided. IAWC cannot effectively identify and correct charge errors using the AWWSC reports routinely provided. NorthStar's analysis surfaced \$228,416 in 2010 charges that appear to be errors or overcharges and should be independently supported by the company.

- VI-1. IAWC was charged \$34,293 in 2010 by AWWSC accounting business units that did not provide it with any services.
- VII-1. AWWSC's inconsistent application of allocation methods for charges from the investor relations (IR) group resulted in IAWC being overcharged \$17,899 for IR services in 2010.
- X-1. AWWSC erroneously charged IAWC \$21,648 for Eastern Division HR costs. When identified during this study, the Company indicated that this was charged in error and would be corrected.
- XIII-2. AWWSC inappropriately charged IAWC \$89,382 for overhead expenses incurred by Eastern Division Operations.
- XVIII-1. In 2010, AWWSC charged IAWC \$2,220 for supply chain employee expenses and overhead when there was no labor charged and no benefits to IAWC from the charges.

- XIX-2. IAWC was erroneously charged \$43,764 by business unit 032019 Western Division (WE) Operational Risk.
- XXII-1. In 2010, IAWC was overcharged \$5,476 by AWWSC for software used by BD personnel.
- XXIV-1. IAWC received \$13,734 more in corporate administration charges than would be expected from the use of nominal AWK allocation procedures.

D. AWWSC'S BT PROGRAM AND ITS POTENTIAL EFFECT ON FUTURE SERVICE CHARGES

The BT program is the result of gradual systems obsolescence and manually intensive business processes currently performed at AWWSC. While improvements are necessary, their value lies in service cost reduction and improved quality, without which the program will not be successful.

- IV-1. AWK's most recent estimate of potential BT savings is [REDACTED] per year.
- IV-2. The need for undertaking the BT or a similar improvement program was well-documented.
- IV-3. AWK undertook the BT program in a reasonable manner.
- IV-4. While the project is ahead of schedule, its projected costs have increased by 9.2 percent or \$25.8 million since the original estimate.
- IV-5. Since IAWC has not undertaken or considered operating as a standalone utility within AWK, it is dependent on AWWSC's ITS systems and had no alternative to participating in the BT program.
- IV-6. In 2010, about 81 percent of the BT costs were attributable to purchases of software licenses and support, and contract services, and would not benefit significantly from further outsourcing efforts by IAWC.
- IV-7. The Allocation of AWWSC BT program costs to IAWC in 2010 was 8.9 percent.
- IV-8. The \$5.5 million charged to IAWC for ITS cost are within industry norms. Combined BT and ITS costs of \$7.9 million exceed industry norms and the additional BT charges were not reflected in terms of reduced AWWSC fees and improved service quality in 2010.
- IV-9. The \$2.4 million for BT in addition to ITS costs must be evaluated on its own merit.

III. SERVICE COMPANY COSTS

A. BACKGROUND

IAWC is an Illinois utility owned by AWK, a holding company that owns numerous regulated and non-regulated companies throughout the United States. **Exhibit III-1** provides a summary of the AWK organization and IAWC affiliates.

Exhibit III-1
AWK Organization and IAWC Affiliate Relationships

Unregulated Affiliates	Regulated Affiliates
American Water Resources American Anglican Canada Company American Water Works Company, Inc. E'town Properties Inc. American Water Works Service Company American Water Services LLC Laurel Oak Properties Corporation TWH LLC E'town LLC Applied Water Management, Inc. Applied Wastewater Services, Inc. Applied Water Management of Delaware, Inc. Hydro-Aerobics, Inc. PWT Waste Solutions, Inc. UESG Holdings, Inc. ACUS Corporation TWNA, Inc. formerly Thames Water North America, Inc. OMI/Thames Water Stockton, Inc. American Lake Water Company American Water Capital Corporation American Water Enterprises, Inc. American Water – Acciona Agua LLC AAET, Inc. American Water Industrials, Inc. American Water Industrial Operations, Inc. E'town Services, LLC Edison Water Company Environmental Management Corp. Liberty Water Company American Water Enterprises Holding, Inc. American Water Canada Corp. American Water Services Underground Infrastructure Corp. EMC American Water Canada, Inc. EMC Batesville, LLC Mobile Residuals Management, Inc. American Water Carbon Services Corp. Horseshoe Carbons Inc. Terratec Environmental Ltd. Prism-Berlie (Windsor) Limited Uniflo Limited Braemar Acres Limited American Water (USA), Inc. American Water Engineering, Inc. Utility Management and Engineering, Inc. Rialto Water Services, Inc. Rialto Water Services, L.P. Mobile Residuals Management (USA), Inc. American Water Operations and Maintenance, Inc. Philip Automated Management Controls Inc. American Water Services CDM, Inc. American Water Resources Holdings, Inc. American Water Resources of Texas, Inc. AAET, L.P.	Arizona – American Water Company Bluefield Valley Water Works Company California - American Water Company EMC of St. Charles County, LLC Hawaii - American Water Company Illinois - American Water Company Indiana - American Water Company Iowa - American Water Company Kentucky - American Water Company Long Island Water Corporation Maryland - American Water Company Michigan - American Water Company Missouri - American Water Company New Jersey - American Water Company New Mexico - American Water Company Ohio - American Water Company Pennsylvania - American Water Company Tennessee - American Water Company Texas - American Water Company Virginia - American Water Company West Virginia - American Water Company

Source: <http://www.sec.gov/Archives/edgar/data/1410636/000119312511047938/dex211.htm>

B. TYPES OF AFFILIATE CHARGES

IAWC has seven contracts with its affiliates: five for receiving services and two for providing services. The ICC is responsible for approving all contracts between regulated utilities and their affiliates. The relationships between IAWC and its affiliates along with the products and services provided are summarized in **Exhibit III-2**. The majority of IAWC's affiliate transactions are with AWWSC, which provides management services and business support services. Included in AWWSC are the Shared Services Center (SSC), which is a shared provider to IAWC, other regulated utilities, and non-regulated businesses.

Exhibit III-2
IAWC Affiliate Relationships¹

Participating Entities	Products and Services	2008 Transactions (\$000)	2009 Transactions (\$000)	2010 Transactions (\$000)
American Water Works Service Company	Management and Business Support Services	\$ 22,969	\$ 23,448	\$ 25,915
American Water Capital Corporation	Financial Services	14,526	14,397	17,501
American Lake Water Company	Maintenance Services	(217)	(232)	(187)
American Anglican Environmental Technologies	Granular Activated Carbon filtering Services	332	1,803	156
American Water Works Service Company	Rental Agreement	(157)	(157)	(157)
American Water Resources	Rental Agreement	528	528	528
American Lake Water Company	Water	11,119	11,637	12,877

C. SERVICE COMPANY PRODUCTS AND SERVICES

In 2010, AWWSC was organized into 138 business units grouped into 21 functions. **Exhibit III-3** provides a breakdown of the 21 functions by business unit, IAWC charges for 2010 and total 2010 AWWSC costs. In 2010, IAWC received approximately 9.4 percent of the total AWWSC charges.

¹ DR 18, confidential

Exhibit III-3
2010 Service Company Total Cost and IAWC Charges²

Function/Business Unit	IAWC Charges	AWWSC Total Cost	Percent IAWC
1. Audit	\$ 221,575	\$ 1,811,710	12.23%
032060 CORP - Audit	221,575	1,811,710	
2. Belleville Lab Total (Operations cost center)	443,234	5,011,384	8.84
034517 BV LAB – Water Quality	443,234	5,011,384	
3. Benefits Service Center (HR cost center)	126,171	1,568,772	8.04
032014 CORP – Benefits Service Center	126,171	1,568,772	
4. Business Development	279,843	3,986,786	7.02
032020 CORP – Corporate Bus Development	155,835	2,711,754	
033020 WE – Business Development	(38)	20,126	
033520 CE – Business Development	123,083	526,820	
035020 SE – Business Development	963	728,086	
5. Business Transformation (BT)	2,414,660	27,136,682	8.90
032040 CORP – Business Transformation	195,427	2,420,821	
032051 CORP – Bsns Trans – Procure to Pay	237,290	2,665,148	
032052 CORP - Bsns Trans – Recruit /Retire	316,327	3,536,583	
032053 CORP - Bsns Trans – Record /Report	263,143	3,034,917	
032054 CORP - Bsns Trans – Order to Cash	499,326	5,486,452	
032055 CORP - Bsns Trans – Plan, Build, Ret	438,331	4,838,877	
032056 CORP - Bsns Trans – Order / Comp	464,816	5,153,883	
6. Corporate Administration	127,422	1,936,657	6.58
032089 CORP – AWE Pass Thru	61,331	1,320,688	
032098 CORP – Non-departmental Costs	66,091	615,969	
7. Customer Service Center	4,225,979	46,227,458	9.14
034005 CCA - Administration	324,764	3,563,181	
034070 CCA – Call Handling	834,330	9,139,835	
034071 CCA – Billing	688,064	7,539,054	
034072 CCA – Collections	220,267	2,430,725	
034073 CCA – Operations and Performance	397,548	4,359,208	
034074 CCA – Business Services	127,491	1,378,475	
034075 CCA – Education and Development	86,197	946,983	
037005 CCP - Administration	96,836	1,052,834	
037070 CCP – Call Handling	1,062,491	11,580,465	
037073 CCP – Operations and Support	274,358	2,992,486	
037075 CCP – Educations and Development	113,632	1,244,211	
8. Eastern Division Operations	89,424	5,978,626	1.50
032023 CORP – Eastern Division Operations	29,139	804,179	
035002 SE – Network	1,385	390,517	
035005 SE – Administration	10,421	1,924,841	
035014 SE – Engineering	919	392,151	
035503 ED – Customer Relations	47,507	2,445,541	
036501 NE - Productions	52	21,398	
9. External Affairs	764,615	8,826,966	8.66
032022 CORP-Government Affairs	46,414	557,840	
032025 CORP-External Affairs	110,279	1,315,762	
032068 CORP-Marketing	135,655	1,541,079	
032085 CORP-External Communications	84,231	1,006,461	
032086 CORP-Internal Communications	37,582	458,642	
032087 CORP-Corp Social Resp	57,104	689,843	
033025 WE-External Affairs	3,873	761,657	
033525 CE-External Affairs	285,937	1,551,616	
035025 SE-External Affairs	3,183	585,294	
036525 NE-External Affairs	357	358,774	

² DR 55 Attachment 2, confidential

PUBLIC VERSION
(Confidential Material Redacted)

Function/Business Unit	IAWC Charges	AWWSC Total Cost	Percent IAWC
10. Finance	1,979,815	21,717,419	9.12
032007 CORP-Finance	254,659	2,934,929	
032017 CORP-Planning & Reporting	76,634	927,430	
032027 CORP-Reporting & Compliance	371,737	4,387,288	
032047 CORP-Income Tax	334,076	3,681,461	
032057 CORP-Treasury	216,926	2,843,272	
033007 WE-Finance	25,076	1,187,716	
033507 CE-Finance	685,762	2,745,949	
035007 SE-Finance	14,288	2,705,586	
036507 NE-Finance	593	303,038	
037777 CORP-IFRS-Finance	64	750	
11. Human Resources	1,243,128	10,757,007	11.56
032002 CORP-HR Comp/Benefits	146,556	1,803,481	
032003 CORP-HR Talent Development	146,182	1,252,593	
032004 CORP-HR Labor Relations	61,207	733,195	
032006 CORP-Business Center HR	86,044	1,023,309	
032013 CORP-HR Systems & Processes	40,916	473,499	
032018 CORP-Human Resources	121,241	1,454,476	
032028 CORP-ED Human Resources	21,648	816,417	
032038 CORP-WD Human Resources	514,307	2,049,097	
032048 CORP – HR Health and Wellness	(15)	0	
033518 CE-Human Resources	0	0	
034018 CCA-Human Resources	105,040	1,150,941	
036518 NE-Human Resources	0	0	
12. Investor Relations	60,680	994,904	6.10
032037 CORP – Investor Relations	60,680	994,904	
13. Information Technology (IT)	5,506,172	63,326,050	8.69
032030 CORP-ITS Client Rel Admin	31,788	377,163	
032031 CORP-Service Desk	109,215	1,272,903	
032032 CORP-ITS-BAD-Core Shared	193,597	2,251,322	
032033 Chg Ctrl & Desktop Automation	24,888	304,754	
032071 CORP-ITS Admin	257,620	2,901,750	
032072 CORP-ITS PMO	153,028	2,540,764	
032073 CORP-ITS Infra/Oper Admin	44,930	558,459	
032074 CORP-ITS Production	1,475,896	21,012,598	
032075 CORP-Enterprise Server	445,450	5,446,193	
032076 CORP-Communications	371,468	4,510,151	
032077 CORP-ITS Security Operations	165,130	1,898,909	
032078 CORP-ITS Adm Business App Dev	79,060	978,387	
032079 CORP-ITS-BAD-Middle Office App	224,430	2,599,761	
032080 CORP-ITS-BAD-Back Office Apps	208,338	2,487,464	
032081 CORP-ITS-BAD-Quality & Meth	86,542	1,128,372	
032082 CORP-ITS-BAD-Customer Facing	212,142	2,566,345	
032083 CORP-ITS-BAD-Field Svc Apps	236,588	2,952,942	
032093 CORP-ITS-Architecture	180,273	2,249,078	
033531 CE-Western CS & S	1,005,603	5,271,743	
035031 SE-ITS Client Relations	86	15,851	
036531 NE-Eastern CS & S	98	1,139	
14. Legal	995,851	8,161,863	12.20
032015 CORP-Legal	309,630	3,542,621	
033015 WE-Legal	6,253	1,177,864	
033515 CE-Legal	678,427	2,247,737	
035015 SE-Legal	1,147	803,658	
036515 NE-Legal	395	389,983	

PUBLIC VERSION
(Confidential Material Redacted)

Function/Business Unit	IAWC Charges	AWWSC Total Cost	Percent IAWC
15. Operations	1,802,423	17,847,957	10.10
032011 CORP-Chief Operating Officer	215,557	2,450,061	
032016 CORP-Maintenance Services	1,661	125,569	
032019 CORP-Operational Risk	156,499	1,479,415	
032064 CORP-Operational Performance	0	0	
032065 CORP-Asset Management	210,725	2,065,521	
032066 CORP-Innov & Env Stewardship	217,886	2,772,012	
033016 WE-Maintenance	22,090	578,295	
033019 WE-Operational Risk	43,764	271,007	
033516 CE-Maintenance	354,750	1,407,745	
033519 CE-Operational Risk	263,123	1,249,572	
035016 SE-Maintenance	22,297	701,410	
035019 SE-Operational Risk	202	41,121	
036516 NE-Maintenance	1,902	206,314	
036550 CORP-COE-Engineering	123,012	1,595,250	
036551 CORP-COE-Technical Services	168,955	2,904,666	
16. Property	1,088,687	12,540,066	8.68
032042 CORP-1000 Voorhees Building	72,632	919,693	
032046 CORP-3906 Church Road	116,561	1,345,783	
032062 CORP-Building Services	633,686	6,952,614	
032063 CORP-Building Services Woodcrest	265,808	3,304,924	
036576 NE-Building Services Woodcrest	0	17,051	
17. Regulated Operations	179,486	1,950,413	9.20
032026 CORP – Regulated Operations	179,486	1,950,413	
033006 WE – Service Delivery	0	0	
18. Regulatory Operations	74,891	797,055	9.40
032069 CORP – Regulatory UFS	74,891	797,055	
19. Shared Services Company	1,524,863	19,375,226	7.87
032084 SSC-Accounts Payable	138,499	1,936,131	
032505 SSC-Administration	210,948	2,399,611	
032570 SSC-General Accounting	240,255	3,079,273	
032571 SSC-Tax	102,773	1,188,657	
032572 SSC-Business Support Services	125,253	1,409,858	
032574 SSC-Rates & Regulation	132,590	1,816,295	
032575 SSC-Cash Operations	152,119	1,772,727	
032577 SSC-Utility Plant Accounting	198,044	1,947,202	
032578 SSC-Project Management	26,063	316,130	
032579 SSC-Employee Services	178,896	2,230,227	
032580 SSC-AWE	19,422	1,279,115	
20. Supply Chain (Operations Cost Center)	398,610	4,266,701	9.34
032010 CORP-Supply Chain-Sourcing	316,007	3,538,278	
033010 WE-Supply Chain	1,663	232,124	
033510 CE-Supply Chain	80,382	294,454	
035010 SE-Supply Chain	557	201,845	
21. Western Division Operations	2,367,731	10,062,812	23.53
032024 Corp-Western Division Ops	132,925	575,359	
033005 WE-Administration	21,938	1,401,076	
033014 WE-Engineering	4,665	456,079	
033502 CE-Network	202,161	703,018	
033503 CE-Customer Relations	779,632	2,804,140	
033505 CE-Administration	427,442	2,067,835	
033511 CE-Environmental Mgmt	20,674	260,643	
033514 CE-Engineering	778,294	1,794,662	
Total	\$25,915,259	\$274,282,515	9.45%

Source: DR 55 Attachment 2, confidential

AWWSC is organized into two levels: corporate and divisional. The corporate level of the organization performs services that can be universally provided to all companies, or functions that are necessary to support the corporate structure. The divisional level provides services specific to utilities within a region. The Western Division (WE) includes: Arizona, California, Hawaii, Illinois, Iowa, Missouri, New Mexico, and Texas. Illinois represents 26

percent of the division based on customers. The Eastern Division includes Indiana, Kentucky, Maryland, Michigan, Ohio, Tennessee, Virginia, West Virginia, and Long Island.³

Operating companies such as Pennsylvania American Water and New Jersey American Water (NJAW) have certain functions that are sufficiently large to warrant dedicated resources at the utility and are their own divisions. These costs are typically embedded in the utility's cost structure. The staff reports organizationally to the utility and functionally to AWWSC.

During 2010, IAWC received AWWSC charges from business unit/functions that were not consistent with its structural organization:⁴

- Central Region (CE)
- Northeast (NE)
- Southeast (SE)

Exhibit III-4 provides a breakdown of costs by corporate and divisional layers.

Exhibit III-4
2010 Cost Breakdown by Layer⁵
(1,000s of Dollars)

Layer	IAWC Charges	AWWSC Total Cost
Corporate	\$19,994	\$233,037
Divisional	5,920	41,245
Total	\$25,915	\$274,282

D. COSTS

AWWSC's JD Edwards accounting system tracks costs through 86 object accounts. Object accounts are cost pools such as labor, benefits, expenses, and general overhead. The object accounts are grouped into seven categories. **Exhibit III-5** provides the distribution of cost by category. Labor, general overhead and benefit overhead account for 75 percent of all costs.

³ DR 2, 32 Attachment 3 confidential, and 241

⁴ DR 55, confidential

⁵ DR 55 Attachment 2, confidential; NorthStar Analysis

Exhibit III-5
2010 Cost Distribution of AWWSC Charges to IAWC⁶

Category	Cost	Percent
Direct Labor	\$9,412,787	36%
Benefit Overhead	4,959,114	19
General Overhead	5,297,677	20
Other Overhead (Utilities, etc)	1,430,710	6
Other Employee (Taxes, Inc. Comp etc)	1,883,203	7
Contract Services	2,117,574	8
Miscellaneous (Dues etc)	814,251	3
Total	\$25,915,316	100%

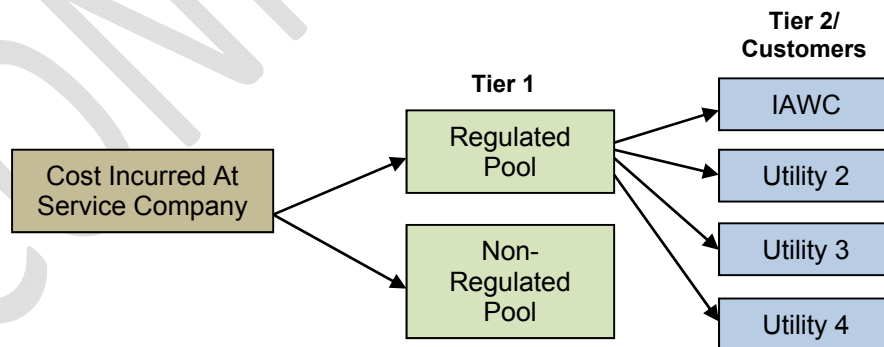
Cost Development

AWWSC bills IAWC monthly based on an estimate using the prior month actual billing as a basis for each operating company. The bill is then adjusted by a reconciliation of the previous month's estimate versus actual cost.⁷

Charges to the operating companies are formula-based. Costs are either direct charged or allocated to the operating companies based on the formula used. A direct formula for IAWC is one where 100 percent of the charges are billed to IAWC. These formulas are used for IAWC capital projects and work activities that are performed solely on the behalf of IAWC.

Allocated formulas are developed utilizing a two-step process, Tier 1 and Tier 2. Tier 1 is where charges are split between the regulated and non-regulated businesses. Tier 2 is where the regulated charges are split between the individual operating companies. **Exhibit III-6** provides an illustration of the methodology.

Exhibit III-6
Cost Allocation Formula Methodology



- Tier 1 allocates costs into two areas: regulated and non-regulated. There are no company-specific costs identified at this first level but rather a regulated companies'

⁶ DR 55 Attachment 7, confidential; NorthStar Analysis

⁷ DR 32 Attachment 3 page 21, confidential

pool of costs and a non-regulated companies' pool of costs. **Exhibit III-7** identifies the ten types of Tier 1 allocations.

Exhibit III-7
Tier 1 Allocations⁸

Name	Causal Factors	Metric
1. Three-Factor Formula	Operating revenues, net property, plant and equipment, and employees	Dollars and employees equally weighted
2. Two-Factor Financial Services Formula	Operating revenues and employees	Dollars and employees equally weighted
3. Revenue Factor	Operating revenues	Dollars
4. Personal Computer Factor	Personal computers	Count
5. Total Premises Factor	AS400 premises/installations (database)	Count
6. Employee Factor	Active employees	Count
7. Budgeted Capital Projects and Engineering Project Management Factor	Budgeted capital expenditures	Dollars
8. Research Authorization Project Factor	Budgeted research projects	Dollars
9. Purchase Orders and Purchasing Card (P-Card) Factor	Purchase order and P-card	Number of Transactions
10. Employee and Retiree Factor	Active and retired Employees	Count

- After the costs are allocated to the regulated (and non-regulated) segments of AWK, the regulated portion is distributed to IAWC based on IAWC's pro-rated share of "affected customers", also called a Tier 2 allocation. Affected customers can be regional such as Western Division or Eastern Division Operations or include all regulated utilities.
- Labor costs are formula-based. General overhead and benefit overhead follow labor costs.⁹ Materials and expenses are formula allocated. Utilizing this mechanism, service company employees regardless of position, report their time via a formula. There is no management overhead embedded in any of the functional charges.

AWWSC utilizes four basic principles in billing IAWC:

- 1) Services at Cost – AWWSC provides its services at cost. There is no profit included in the charges billed to affiliates.
- 2) Direct Charging – Whenever possible, AWWSC expenses are charged directly to the specific affiliate (regulated or non-regulated) that benefits from the underlying work.
- 3) Charging common costs – AWWSC expenses that cannot be direct charged to a specific affiliate are allocated via formulas used by AWWSC employees for coding all time and expenses.

⁸ DR 32, Attachment 3, confidential

⁹ DR 32 Attachment 3 confidential, IS 3

- 4) Billing Accuracy – All efforts are made to ensure that billings are correct. AWWSC performs monthly reviews of costs and allocations for accuracy. Affiliates have the opportunity to review AWWSC billings and, where necessary, request adjustment for inaccurate charges.¹⁰

E. DISCUSSION OF COSTS

1. AWWSC does not consistently adhere to its second cost assignment principle - direct charging - whenever possible.

- In 2010, AWWSC charged 312,780 non-capital project-related hours to IAWC. **Exhibit III-8** provides the amount for each AWWSC function.
- Only 17 percent of all hours were the result of direct charge formulas.¹¹
- Several functions within AWWSC have opportunities to utilize direct charges but do not.
 - Belleville Lab charges 100 percent of its hours using the customer-based allocation formula. A per-test charge would be more appropriate.
 - The Customer Service Center has a dedicated specialty desk for Chicago Metro IAWC customers.¹² The time associated with this desk is not direct charged as policy dictates.
 - The payroll function is allocated based on number of customers. Payroll should charge based on the numbers of paychecks or employees.
 - Supply Chain costs are allocated based on number of customers. Supply Chain could charge by number of purchase orders or cost of materials.

Exhibit III-8
2010 Direct Hours Charged¹³

Function/Business Unit	Allocated	Direct ¹⁴	Grand Total	Direct (Percent)
1. Audit	1,391	725	2,116	34%
2. Belleville Lab	5,983		5,983	0
3. Benefit Services Center	2,555		2,555	0
4. Business Development	879	1,844	2,723	68
5. Business Transformation	3,709		3,709	0
6. Corporate Administration	4		4	0
7. Customer Service Center	125,315	8	125,323	0
8. Eastern Division Operations	1		1	0
9. External Affairs	5,031		5,031	0
10. Finance	11,863	6,925	18,787	37
11. Human Resources	7,950	7,931	15,880	50

¹⁰ DR 32 Attachment 3 confidential

¹¹ DR 55, Attachment 5 confidential

¹² DR 1, Attachment 12

¹³ As reported in DR 55, Attachment 5, confidential; NorthStar Analysis

¹⁴ Excludes 7,331 hours charged to capital projects.

Function/Business Unit	Allocated	Direct ¹⁴	Grand Total	Direct (Percent)
12. Investor Relations	271		271	0
13. Information Technology Services	27,549	5,870	33,420	18
14. Legal	6,288	1,882	8,170	23
15. Operations	12,062	7,637	19,698	39
16. Property	1,907		1,907	100
17. Regulated Operations	376		376	0
18. Regulatory	363	12	375	3
19. Shared Services Center	22,364	5,433	27,797	20
20. Supply Chain	5,624	603	6,227	10
21. Western Division Operations	19,649	12,777	32,426	39
Grand Total	261,134	51,646	312,780	17%

2. AWWSC does not consistently adhere to its fourth cost assignment principle - accurate billing.¹⁵

- AWWSC timekeeping systems do not have system restrictions concerning formula usage by employees.¹⁶
 - The accuracy of time reporting is almost entirely dependent on employees knowing which formula to input and correctly inputting it.
 - The next level of review is supervisory, which has the same drawbacks and risks as the employee inputs.
 - The final level of review is exception reports prepared by financial planning and accounting.¹⁷
 - 2010 coding errors to IAWC included:
 - The ORM Director – Risk Management for Arizona and California charged the entire year to the wrong formula resulting in 540 hours mistakenly charged to IAWC.¹⁸
 - WE Legal incorrectly charged \$1,929 to IAWC.¹⁹
 - Investor Relations direct charged 50 percent of its time to regulated companies and 50 percent to non-regulated companies. Expenses such as contract services are allocated resulting in expenses not following the labor.²⁰
 - CORP – ED HR incorrectly charged \$21,648 to IAWC.²¹
- Overhead charges do not always follow labor charges.

¹⁵ Abnormalities listed in this chapter provide an example. This list is not intended to be exhaustive. Other anomalies were noted and mentioned in the subject matter chapters.

¹⁶ IS 76

¹⁷ IS 76

¹⁸ DR 245

¹⁹ DR 297

²⁰ DR 55, confidential and IS 57

²¹ DR 289

- AWWSC's cost allocation manual states:

“Overhead expenses are “pooled” by physical location ... for billing. All overhead expenses in each “pool” are separately allocated to affiliates as fees and capital (including Service Company for capital) based on the proportion of direct labor charges (GL account 501200) billed by each “cost pool” (i.e. physical location) monthly.”²²

- The following irregularities were noted:²³

Exhibit III-9
Charging Irregularities²⁴

Function/Business Unit	Labor Hours	Labor Cost (\$)	Benefit Overhead (\$)	General Overhead (\$)
035005 SE-Administration	1	42	\$8,244	\$2,129
035503 ED- Customer Relations	0	0	3,474	43,866
032023 CORP ED Operations	0	0	1,738	26,814
032580 SSC-AWE	1	25	1,560	17,803
032098 Non-Departmental Costs	4	(575)	2,758	13,098

- AWWSC utilizes a different allocation method than described in its allocation manual:

“Service Company allocates overheads by accumulating monthly labor charges by overhead location to capture the percentage of labor charged to each company from that location. The percentage is then used to allocate benefit and general overheads to all business units in the particular overhead location.”²⁵

3. IAWC does not adequately review monthly charges from AWWSC and has no information to determine if AWWSC's bills are accurate.²⁶

- IAWC receives a monthly budget versus actual statement from AWWSC, where variances can be analyzed. The monthly statement includes:
 - Total costs
 - Actual to forecast budget reports

²² DR 32, Attachment 3 confidential

²³ DR 55, confidential

²⁴ DR 55, Attachments 5 and 7, confidential; NorthStar Analysis

²⁵ DR 167, 168, 216

²⁶ Direct testimony of Karla Teasley: “IAWC personnel conduct a detailed review of the Service Company bills and cost Allocations affecting IAWC. This review process assures that Service Company billing is accurate and reasonable...each month; IAWC prepares a comparison of actual cost incurred in the budgeted cost levels for all items, including Service Company billing. IAWC also Reviews a budget/actual variance report prepared monthly by the Service 490 Company for all of its operations.” DR 1 Exhibit 1.00 line 483-491

- Costs by business unit
- Employees charging time
- There is no cost transparency below business unit total cost. IAWC does not receive business unit cost breakdown by object account (labor, professional services, benefits, meals, general overhead and 401K).
- There is no readily available method to determine the detailed costs by business unit of any object account (i.e. number and types of professional service contracts allocated to IAWC.)²⁷
- IAWC reviews are analyses of budget versus actual cost by function. There is no transparency of cost to determine value or to understand services received.

F. COMPETITIVE COST ANALYSIS

The evaluation of AWWSC costs to those available in a competitive market necessitated a re-bundling of some of the 21 AWWSC functions into work groups that are typically provided in the open market. **Exhibit III-10** provides the grouping of services used for NorthStar's outsourcing study. **Exhibit III-11** provides a summary of Exhibit III-10 by chapter.

Exhibit III-10
Product and Service Grouping²⁸

Chapter 4 Business Transformation		Total Cost \$ 2,414,660
Business Units Included	Function	2010 Cost
032040 CORP-Business Transformation	BT	\$ 195,427
032051 CORP-Bsns Trans-Procure To Pay	BT	237,290
032052 CORP-Bsns Trans-Recruit To Ret	BT	316,327
032053 CORP-Bsns Trans-Record To Rpt	BT	263,143
032054 CORP-Bsns Trans-Order To Cash	BT	499,326
032055 CORP-Bsns Trans-Plan, Build, Ret	BT	438,331
032056 CORP-Bsns Trans-Order To Complete	BT	464,816

Chapter 5 Corporate Finance		Total Cost \$ 1,254,096
Business Units Included	Function	2010 Cost
032007 CORP-Finance	Finance	\$ 254,659
032017 CORP-Planning & Reporting	Finance	76,634
032027 CORP-Reporting & Compliance	Finance	371,737
032047 CORP-Income Tax	Finance	334,076
032057 CORP-Treasury	Finance	216,926
037777 CORP-IFRS-Finance	Finance	64

²⁷ DR 7, Audited Financial Reports to the AWK BoD and Stockholders, IAWC marked confidential

²⁸ DR 55, confidential

Chapter 6 Accounting		Total Cost \$ 2,046,609
Business Units Included	Function	2010 Cost
032570 SSC-General Accounting	SSC	\$ 240,255
032084 SSC-Accounts Payable	SSC	138,499
032571 SSC-Tax	SSC	102,773
032575 SSC-Cash Operations	SSC	152,119
032577 SSC-Utility Plant Accounting	SSC	198,044
032572 SSC-Business Support Services	SSC	125,253
032574 SSC-Rates and Regulations	SSC	132,590
032578 SSC-Project Management	SSC	26,063
032580 SSC-AWE	SSC	19,422
032505 SSC-Administration	SSC	210,948
033507 CE-Finance	Finance	685,762
035007 SE-Finance	Finance	14,288
036507 NE-Finance	Finance	593

Chapter 7 Investor Relations		Total Cost \$ 60,680
Business Units Included	Function	2010 Cost
032037 CORP-Investor Relations	IR	\$ 60,680

Chapter 8 Internal Audit		Total Cost \$ 221,575
Business Units Included	Function	2010 Cost
032060 CORP-Audit	Audit	\$ 221,575

Chapter 9 Customer Service		Total Cost \$ 4,331,018
Business Units Included	Function	2010 Cost
034005 CCA-Administration	CSC	324,764
034018 CCA-Human Resources	HR	105,040
034070 CCA-Call Handling	CSC	834,330
034071 CCA-Billing	CSC	688,064
034072 CCA-Collections	CSC	220,267
034073 CCA-Operations & Performance	CSC	397,548
034074 CCA-Business Services	CSC	127,491
034075 CCA-Education & Development	CSC	86,197
037005 CCP-Administration	CSC	96,836
037070 CCP-Call Handling	CSC	1,062,491
037073 CCP-Operations and Support	CSC	274,358
037075 CCP-Education & Development	CSC	113,632

Chapter 10 Human Resources		Total Cost \$ 1,443,155
Business Units Included	Function	2010 Cost
032018 CORP-Human Resources	HR	\$ 121,241
032006 CORP-Business Center HR	HR	86,044
032013 CORP-HR Systems & Processes	HR	40,916
032004 CORP-HR Labor Relations	HR	61,207
032038 CORP-WD Human Resources	HR	514,307
032003 CORP-HR Talent Development	HR	146,182
032028 CORP-ED Human Resources	HR	21,648
032002 CORP-HR Comp/Benefits	HR	146,556
032014 CORP-Benefits Service Center	BSC	126,171
032048 CORP-HR Health & Wellness	HR	(15)
032579 SSC-Employee Services	SSC	178,896

Chapter 11 Information Technology		Total Cost \$ 5,506,172
Business Units Included	Function	2010 Cost
032071 CORP-ITS Admin	IT	\$ 257,620
032093 CORP-ITS-Architecture	IT	180,273
032072 CORP-ITS PMO	IT	153,028
032030 CORP-ITS Client Rel Admin	IT	\$ 31,788
032031 CORP-Service Desk	IT	109,215
033531 CE-Western CS & S	IT	1,005,603
032033 Chg Ctrl & Desktop Automation	IT	24,888
032077 CORP-ITS Security Operations	IT	165,130
032073 CORP-ITS Infra/Oper Admin	IT	44,930
032074 CORP-ITS Production	IT	1,475,896
032075 CORP-Enterprise Server	IT	445,450
032076 CORP-Communications	IT	371,468
032078 CORP-ITS Adm Business Application Dev	IT	79,060
032079 CORP-ITS-BAD-Middle Office App	IT	224,430
032080 CORP-ITS-BAD-Back Office Apps	IT	208,338
032081 CORP-ITS-BAD-Quality & Methodology	IT	86,542
032082 CORP-ITS-BAD-Customer Facing	IT	212,142
032083 CORP-ITS-BAD-Field Svc Apps	IT	236,588
032032 CORP-ITS-BAD-Core Shared	IT	193,597
035031 SE - ITS Client Relations	IT	86
036531 NE-Eastern Client Services & Support	IT	98

Chapter 12 Customer Relations		Total Cost \$ 779,632
Business Units Included	Function	2010 Cost
033503 CE-Customer Relations	WD	\$ 779,632

Chapter 13 Operational Services - Admin Network		Total Cost \$ 1,268,933
Business Units Included	Function	2010 Cost
032011 CORP-Chief Operating Officer	OPS	\$ 215,557
032026 CORP – Regulated Operations	RO	179,486
032024 Corp-Western Division Ops	WD	132,925
033005 WE-Administration	WD	21,938
033505 CE-Administration	WD	427,442
032023 CORP-Eastern Division Ops	ED	29,139
035002 SE-Network	ED	1,385
035005 SE-Administration	ED	10,421
035014 SE-Engineering	ED	919
035503 ED-Customer Relations	ED	47,507
036501 NE-Production	ED	52
033502 CE-Network	WD	202,161

Chapter 14 Engineering		Total Cost \$ 1,346,982
Business Units Included	Function	2010 Cost
032065 CORP-Asset Management	OPS	\$ 210,725
036550 CORP-COE-Engineering	OPS	123,012
036551 CORP-COE-Technical Services	OPS	168,955
033014 WE-Engineering	WD	4,665
033514 CE-Engineering	WD	778,294
032089 CORP – AWE Pass Thru (Engineering)	CA	61,331

Chapter 15 Maintenance Services		Total Cost \$ 402,700
Business Units Included	Function	2010 Cost
032016 CORP-Maintenance Services	OPS	\$ 1,661
033016 WE-Maintenance	OPS	22,090
033516 CE-Maintenance	OPS	354,750
035016 SE-Maintenance	OPS	22,297
036516 NE-Maintenance	OPS	1,902

Chapter 16 Innovation and Environmental Stewardship		Total Cost \$ 238,560
Business Units Included	Function	2010 Cost
033511 CE-Environmental Mgmt - Removed	WD	\$ 20,674
032066 CORP-Innov & Env Stewardship	OPS	217,886

Chapter 17 Central Lab		Total Cost \$ 443,234
Business Units Included	Function	2010 Cost
034517 BVLAB-Water Quality	LAB	\$ 443,234

Chapter 18 Supply Chain		Total Cost \$ 398,610
Business Units Included	Function	2010 Cost
032010 CORP-Supply Chain-Sourcing	SC	\$ 316,007
033010 WE-Supply Chain	SC	1,663
033510 CE-Supply Chain	SC	80,382
035010 SE-Supply Chain	SC	557

Chapter 19 Risk Management		Total Cost \$ 463,588
Business Units Included	Function	2010 Cost
032019 CORP-Operational Risk	OPS	\$ 156,499
033019 WE-Operational Risk	OPS	43,764
033519 CE-Operational Risk	OPS	263,123
035019 SE-Operational Risk	OPS	202

Chapter 20 Legal		Total Cost \$ 995,851
Business Units Included	Function	2010 Cost
032015 CORP-Legal	Legal	\$ 309,630
033015 CE-Legal	Legal	678,427
033515 WE-Legal	Legal	6,253
035015 SE-Legal	Legal	1,147
036515 NE-Legal	Legal	395

Chapter 21 Regulatory Services		Total Cost \$ 74,891
Business Units Included	Function	2010 Cost
032069 CORP-Regulatory UFS	Regulatory	\$ 74,891

Chapter 22 Business Development		Total Cost \$ 304,919
Business Units Included	Function	2010 Cost
032020 CORP-Corporate Bus Development	BD	\$155,835
033520 CE-Business Development	BD	123,083
035020 SE-Business Development	BD	963
033020 WE-Business Development	BD	-38
033007 WE-Finance	Finance	25,076

Chapter 23 External Affairs		Total Cost \$ 764,615
Business Units Included	Function	2010 Cost
032022 CORP-Government Affairs	Ext. Aff.	\$ 46,414
032025 CORP-External Affairs	Ext. Aff.	110,279
032068 CORP-Marketing	Ext. Aff.	135,655
032085 CORP-External Communications	Ext. Aff.	84,231
032086 CORP-Internal Communications	Ext. Aff.	37,582
032087 CORP-Corp Social Responsibility	Ext. Aff.	57,104
033025 WE-External Affairs	Ext. Aff.	3,873
033525 CE-External Affairs	Ext. Aff.	285,937
035025 SE-External Affairs	Ext. Aff.	3,183
036525 NE-External Affairs	Ext. Aff.	357

Chapter 24 Property and Corporate Administration		Total Cost \$ 1,154,778
Business Units Included	Function	2010 Cost
032042 CORP-1000 Voorhees Building	Prop	\$ 72,632
032046 CORP-3906 Church Road	Prop	116,561
032062 CORP-Building Services	Prop	633,686
032063 CORP-Building Services Woodcrest	Prop	265,808
032098 CORP-Non-Departmental Costs	Corp. Admin.	66,091

Exhibit III-11²⁹
Chapter Summary

Chapter	AWWSC
4. Business Transformation	\$ 2,414,660
5. Corporate Finance	1,254,096
6. Accounting	2,046,609
7. Investor Relations	60,680
8. Internal Audit	221,575
9. Customer Service	4,331,018
10. Human Resources	1,443,155
11. Information Technology	5,506,172
12. Customer Relations	779,632
13. Operational Services – Admin and Network	1,268,933
14. Engineering	1,346,982
15. Maintenance and SCADA Services	402,700
16. Innovation and Environmental Stewardship	238,560
17. Central Lab	443,234
18. Supply Chain	398,610
19. Risk Management	463,588
20. Legal	995,851
21. Regulatory Services	74,891
22. Business Development	304,919
23. External Affairs	764,615
24. Property and Corporate Administration	1,154,778
Total	\$ 25,915,258

²⁹ DR 55, confidential; Aggregation of Exhibit III-10

IV. BUSINESS TRANSFORMATION

This chapter covers the BT process improvement program. In 2010, IAWC was charged \$2.4 million for AWWSC's BT program.¹

A. BACKGROUND

AWK's first computer applications were developed in-house on early mainframe technology in the mid-1970s. AWK added customer billing in the mid-1980s. During this period, AWK operated separate information systems at each state utility. In the mid-1990s, AWK introduced software to support a consolidated company model. Back office functions were provided using JD Edwards for accounting applications and Orcom for customer service functions. In the early 2000s, AWK recognized that it could achieve benefits through the consolidation of common business activities and formed a consolidated shared services center and customer service center. Today, AWK continues to use the software and hardware solutions implemented more than a decade ago.² Over time, AWK's technology has reached the end of its useful life and requires multiple manual processes to support basic information requests. Only ten percent of information can be shared today across applications.³

In 2009, AWK performed an Information Technology Comprehensive Study (CPS)⁴ to address changing business needs and its aging ITS. AWK has subsequently undertaken the development and implementation of a comprehensive BT program to meet its current and future ITS needs. In this regard, AWK implementation of the BT program is scheduled to occur between 2012 and 2013.⁵ The implementation of the BT program should improve AWWSC's ability to meet future ITS requirements and greatly reduce costs.

AWK selected SAP to serve as its ITS platform for the BT program, which is divided into three SAP modules.⁶

- Enterprise Resource Planning (ERP)
 - Hire to Retire – Human resources activities
 - Record to Report – Financial accounting
 - Procure to Pay - Purchasing
- Enterprise Asset Management (EAM)
 - Plan to Build – Physical asset management
 - Request to Completion – Field service
- Customer Information System (CIS)
 - Order to Cash – Customer lifecycle

¹ DR 55, confidential

² DR 113, confidential

³ DR 281, confidential

⁴ DR113, confidential

⁵ DR 281, confidential

⁶ DR 279, confidential

- Request to Completion – Customer interaction.

BT Organization

The BT project is organized as a business unit at AWWSC. Headed by the Vice President (VP) of BT, the group has the following leads:

- ERP Processes
- CIS Processes
- EAM Processes
- Technology
- Change Management
- Business Intelligence.⁷

B. COSTS

In 2009, the overall BT program was projected to cost \$280.4 million (excluding AFUDC). As of May 2011, the original BT cost estimate had increased by \$25.8 million to \$306.2 million or 9.2 percent as shown in **Exhibit IV-1**. Of the total 25.8 million increase 19.8 million of that is attributable to AFUDC which was not included in the original estimate.

Exhibit IV-1
BT Budget Comparison 2009 – Current⁸
(\$ Millions)

	2009	Current	Difference
Internal Labor	\$95.7	\$83.4	(\$12.3)
External Labor	\$101.8	\$106.4	\$4.6
Employee Expenses	\$19.0	\$19.0	\$0.0
Hardware	\$10.8	\$18.2	\$7.4
Software	\$23.2	\$28.8	\$5.6
Program Operations	\$4.0	\$4.0	\$0.0
CPS	\$7.0	\$6.3	(\$0.7)
Contingency	\$18.9	\$14.3	(\$4.6)
SOX/ Controls	\$0.0	\$6.0	\$6.0
	\$280.4	286.4	\$6.0
Other			
AFUDC-BT	\$0.0	\$19.8	\$19.8
Total	\$280.4	\$306.2	\$25.8

⁷ DR 111, confidential

⁸ DR 114, confidential

As indicated in **Exhibit IV-2**, the total costs of ITS and BT services to IAWC from AWWSC have risen significantly from 2009 to 2011, principally due to the ramp-up of the BT program. The total ITS and BT costs are likely to exceed \$12.4 million in 2011 compared to \$4.8 million in 2009, an increase of 158.3 percent.⁹ Costs for the implementation of the BT program are significant because the program touches almost every aspect of AWWSC's and IAWC's operations.

AWK needs to be sensitive to the costs being passed on to the utility ratepayer. An example of the sensitivity to increasing rates was presented in testimony at the most recent rate case, Docket Number 09-0319, filed by IAWC. In the Order dated April 13, 2010 the ICC addressed the issue of whether the CPS should be paid for by the ratepayer.¹⁰ It stated:

"While the Commission understands the AG's view that expending money on studies such as the CPS contributes to higher rates, all corporations must plan for the future. The commission believes that in the long run, customers benefit when utilities engage in such planning. Here the Company has explained why the CPS is beneficial to customers. The evidentiary record does not support a finding that the cost of the CPS should be disallowed as duplicative or unnecessary, and the Commission will not adopt the AG's recommendation to do so."

The aforementioned language refers to planning studies and not to an implementation program as extensive and costly as the BT program.¹¹

Exhibit IV-2
Summary of ITS and BT Costs (2009 to 2011)¹²
(\$ Millions)

Category	2009	2010	2011 (Six Months)
ITS Costs:			
IAWC	\$4.3	\$5.5	\$2.9
AWWSC	<u>49.4</u>	<u>63.3</u>	<u>32.4</u>
Percent	8.7%	8.7%	8.7%
BT Costs:			
IAWC	0.5	2.4	3.4
AWWSC	<u>5.7</u>	<u>27.1</u>	<u>34.0</u>
Percent	8.8%	8.9%	10.0%
Category	2009	2010	2011 (Six Months)
Total BT and ITS:			
IAWC	\$4.8	\$7.9	\$6.3
AWWSC	55.1	90.4	66.4
Percent	8.7%	8.7%	9.5%

⁹ DR 55, confidential

¹⁰ ICC ORDER 09-0319 April 13, 2010 page 21

¹¹ ICC ORDER 09-0319 April 13, 2010.

¹² DR 55, confidential

By 2010, the BT program had moved into the development phase and increased costs for BT started to flow through to IAWC. **Exhibit IV-3** provides a table of charges to IAWC in 2010 broken out by the process functions.

Exhibit IV-3
2010 BT Charges to IAWC by Program¹³
(\$ Thousands)

SAP Module	Program	Amount	Percent
CIS	Order to Cash	\$499	20.7%
CIS	Request to Completion	464	19.2
EAM	Plan to Build	438	18.1
	Request to Completion		
ERP	Hire to Retire	316	13.1
ERP	Record to Report	263	10.9
ERP	Procure to Pay	237	9.8
	Corporate	198	8.2
	Total	\$2,415	100%

Exhibit IV-4 shows the same costs by type. For 2010, 81 percent of the BT costs incurred were for software licenses, support agreements and contracted services.

Exhibit IV-4
2010 BT Charges to IAWC by Type of Cost¹⁴
(\$ Thousands)

Type	Amount	Percent
Software Licenses & Support		
Contract Services		
Labor & Benefits		
General Overhead		
Other		
Total	\$2,415	100%

How costs associated with BT are charged to IAWC

AWWSC is charging IAWC for BT costs based on the proportionate percentage of IAWC's customer base to the overall regulated utility customer base of AWK. The costs are recorded on IAWC's books on a monthly basis as those costs are incurred.¹⁵ AWWSC intends to include BT capital costs in utility plant in-service based upon expected in-service dates for the ERP system and for EAM and CIS. Depreciation will be calculated from the expected service dates.¹⁶

¹³ DR 55, confidential

¹⁴ DR 55, confidential

¹⁵ DR 120

¹⁶ DR 120

IAWC is expected to recover its costs for BT in the ratemaking process. Since IAWC uses a fully forecasted test year, a test year level of depreciation expense will be calculated for recovery, as will a thirteen-month average of rate base amounts of ERP, EAM and CIS (the three modules of the SAP system) net of accumulated depreciation. In addition, the amount of hardware lease costs and maintenance expense that are forecasted to be incurred during the test year will also be included in the revenue requirement.¹⁷

C. TASKS PERFORMED

To perform our review of the BT program, NorthStar performed the following steps:

1. Reviewed pertinent documentation regarding the BT program including the ITS strategic plan, the business case supporting the plan and status reports regarding the program.
2. Interviewed key IAWC and AWWSC executives regarding the status and objectives of the program.
3. Assessed the costs and expected benefits from implementation of the BT program.
4. Assessed the viability of outsourcing the BT program by IAWC.
5. Evaluated the potential value of the BT program to IAWC when implemented.
6. Assessed the appropriateness of the cost allocation of BT costs to IAWC.

D. RESULTS

1. **AWK's most recent estimate of potential BT savings is [REDACTED] per year.¹⁸**
 - AWK has identified potential cost savings in the ERP and CIS area, and the potential cost savings may begin as early as 2014.¹⁹
 - The BT program is approximately 40 percent complete, and AWK has about 70 percent confidence in the estimated costs of the BT program at this time. It also has only a 50 percent confidence in the estimated cost savings that may result from the BT program.²⁰
 - AWK and IAWC are still unable to confirm the amount of potential savings that may be realized as a result of BT and are unable to specifically identify how potential savings will be attained.²¹

¹⁷ DR 120

¹⁸ DR 110, confidential

¹⁹ DR 114, confidential

²⁰ DR 114, confidential

²¹ DR 114, confidential

2. The need for undertaking the BT or a similar improvement program was well-documented.

- The business case clearly identified the aging status of AWWSC's ITS infrastructure.
- AWWSC stated that the ITS infrastructure was insufficiently supported for a number of years.²²
- NorthStar confirmed the need and inefficiencies caused by the aging IT systems.

3. AWK undertook the BT program in a reasonable manner.

- A strong business case for the program was developed showing the need for and the benefits to be received from undertaking the program.²³
- The selection of the ITS platform for the program was performed in an appropriate fashion using a competitive bidding and evaluation process.²⁴
- Likewise, the system integrator was selected with a similar bidding and evaluation process.²⁵

4. While the project is ahead of schedule, its projected costs have increased by 9.2 percent or \$25.8 million since the original estimate.

- Implementation is expected to start in 2012 and be completed in 2013 compared to the original schedule of a start in 2012 and a completion in 2014.²⁶
- However, the cost estimate has increased from \$280.4 million to \$306.2 million.²⁷

5. Since IAWC has not undertaken or considered operating as a standalone utility within AWK, it is dependent on AWWSC's ITS systems and had no alternative to participating in the BT program.

- IAWC has not considered operating as a standalone utility with its own ITS systems within AWK.²⁸
- IAWC, however, believes that it has appropriate insight and knowledge about and input to the BT program and believes that IAWC will greatly benefit from the program.²⁹

²² DR 110, confidential

²³ DR 110, confidential

²⁴ DR 279, confidential

²⁵ DR 279, confidential

²⁶ DR 281, confidential

²⁷ DR 114, confidential

²⁸ DR 147

²⁹ DR 116